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## Ethiopian Education Network to Support Agricultural Transformation (EENSAT)

**Course Title: EUMETCast for African Users**  
**Course Overview**

	Name(s)	Responsibility
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Open Course Ware





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Ministry of Science and Higher Education - Ethiopia



**ITC** UNIVERSITY OF TWENTE.

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## 1. Introduction

The purpose of this course is to introduce the participants with the data dissemination system called EUMETCast, or globally referred to as GEONETCast. This low cost data dissemination system allows free near real time satellite data reception from a range of satellites and associated products from various data providers. The focus of this course will be on system setup for African users. The course will elaborate on the system requirements like parabolic antenna, LNB and DVB-S2 configuration / antenna pointing, service registration, different types of data received and the necessary data management. An introduction will be provided on the visualization of a number of satellite images from geostationary satellites (like MSG) and polar orbiting satellites (like METOP) as well as a range of land and atmosphere products. Use is made of free and open tools for image import and processing.

The table below shows the overall course curriculum. Total course duration is 40 hrs, guidance by the lecturer will be for 6 weeks as from the start of the course. This entails that an average weekly effort of about 6 to 7 hours is expected to conduct the course.

By the end of the course, if all assignments are provided and well evaluated, a certificate of attendance will be provided.

**Table 1: Course Curriculum**

Main topic	Sub topic(s)	Type of study material	Study load (hours)
Course description	Overall course guide	Document	2
<b>Lesson 1:</b> Overall EUMETCast system description, EO portal registration and services available	<ul style="list-style-type: none"> <li>○ GEO and GEONETCast</li> <li>○ EUMETCast</li> <li>○ EO portal registration</li> <li>○ Setup receiving station</li> <li>○ UNS and Service status</li> </ul>	PPT, documents and links to <a href="#">www</a>	8
<b>Lesson 2:</b> EUMETCast system component details	<ul style="list-style-type: none"> <li>○ Dish, dish pointing and LNB</li> <li>○ DVB (most common used) and computer(s) setup</li> <li>○ Software components                             <ul style="list-style-type: none"> <li>▪ DVB-S2 driver and software installation</li> <li>▪ EKU</li> <li>▪ Tellicast</li> </ul> </li> </ul>	Documents and links to <a href="#">www</a>	15
<b>Lesson 3:</b> Satellites in the EUMETCast data stream	<ul style="list-style-type: none"> <li>○ Geostationary - MSG</li> <li>○ Polar orbiting - METOP / NOAA / Jason</li> <li>○ Selected SAF and 3<sup>rd</sup> party data</li> </ul>	PPT, document and link to <a href="#">www</a>	10

	<ul style="list-style-type: none"> <li>○ OSCAR –WMO data base</li> <li>○ Satellite tracking (SSEC-Data Center)</li> </ul>		
<b>Lesson 4:</b> Data examples and inventory using the GEONETCast Product Navigator	<ul style="list-style-type: none"> <li>○ Data examples in EUMETCast</li> <li>○ Online, at <a href="http://www.EUMETSAT.int">http://www.EUMETSAT.int</a></li> <li>○ Onsite, at the receiving station</li> <li>○ Conduct exercises</li> </ul>	PPT, document and link to www or onsite	5

## 2. Prerequisites

The participants for this course do not require specific background information. A basic understanding of remote sensing is preferred but not required. The course uses a number of online tools, therefore internet access is required.

## 3. Overall course schedule

Prior to start of course all material should be locally available at computer of participant.

Day 1	Day 2	Day 3	Day 4	Day 5
Study course guide and start with lesson 1	Continue lesson 1	Lesson 2	Lesson 2	Lesson 2
Day 6	Day 7	Day 8	Day 9	Day 10
Finalize lesson 2 and start with lesson 3	Lesson 3	Lesson 3	Finalize lesson 3 and start with lesson 4	Lesson 4

Note: Each block is considered to be 4 hours

**During and after completion of the course the exercise results (total of 3 assignments, 1 each for lesson 2, 3 and 4) should be uploaded into the LMS. Through LMS also course evaluation procedure will be provided.**